ORIGINAL RESEARCH PAPER
Volume-6 | Issue-12 | December-2017 | ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 93.98
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A STUDY ON BENIGN BREAST DISORDERS

General Surgery

Dr. M.Sai Ram Prasad Associate Professor Department of General Surgery Alluri Sitarama Raju Academy of Medical Sciences Eluru - 534005 West Godavari District, Andhra Pradesh, India

Dr.K.Rajasekhar* Postgraduate Department of General Surgery Alluri Sitarama Raju Academy of Medical Sciences Eluru - 534005 West Godavari District, Andhra Pradesh, India *Corresponding Author

Dr. D.Mahesh Rahul Postgraduate Department of General Surgery Alluri Sitarama Raju Academy of Medical Sciences Eluru - 534005 West Godavari District, Andhra Pradesh, India

ABSTRACT

Benign Breast Disorders have been a clinical problem for centuries, as reflected in writings as early as those of Astley cooper at the beginning of the nineteenth century. For patients it causes discomfort and anxiety, which varies from nuisance value to serious interference with the quality of life. For clinicians, the condition causes a range of problems of diagnosis, assessment and management which are not always clearly recognized.

Thirty percent of female population suffer from Benign Breast Disease. Benign Breast Disease is a common disorder in females from puberty to menopause. It is ten times more common than breast cancer. As the breast is constantly undergoing changes because of various hormonal influences, there is a lot of confusion in differentiating between normality and pathology.

The present study is a prospective study in 100 patients regarding the age related incidence, parity related incidence, type of clinical presentation, anatomical situation of lump, various pathological patterns of benign breast diseases and treatment adopted.

KEYWORDS

Benign breast disorders

Introduction:

Thirty percent of female population suffer from Benign Breast Disease. Benign Breast Disease is a common disorder in females from puberty to menopause. It is ten times more common than breast cancer. The spectrum of benign breast diseases show considerable variations from one geographical region to another.

The fibroadenoma is much more common in blacks as compared to whites and the reverse is true for Fibrocystic disease. The benign breast diseases are one of the most confused area of surgery, because, there are different terms describing the same pathology, and because of confused correlation between clinical diagnosis and histopathological findings. As the breast is constantly undergoing changes because of various hormonal influences, there is a lot of confusion in differentia ting between normality and pathology.

The aim in managing benign breast diseases is to exclude cancer and thereafter to treat any remaining symptoms. These include, pain, a lump in the breast and nipple discharge. The present study is a prospective study in 100 patients regarding the age related incidence, parity related incidence, type of clinical presentation, anatomical situation of lump, various pathological patterns of benign breast diseases and treatment adopted.

AIMS &OBJECTIVES:

1. Clinical study of clinical findings, pathology reports and treatment adopted.
2. A study of literature on the subject to have a comprehensive view of modern trends as regards to its etiology, classification, pathology, treatment and operative procedures.
3. Statistical data on 100 cases that attended surgical OP in ASRAM MEDICAL COLLEGE, ELURU, regarding the age related incidence, parity related incidence, type of clinical presentation, anatomical situation of lump, various pathological patterns of benign breast diseases and treatment adopted.

MATERIALS: We conducted a prospective study in THE DEPARTMENT OF GENERAL SURGERY at ASRAM, Eluru. A total number of 100 patients were taken up for the study. The study was conducted over a period of 24 months from January 2010 to January 2012

CLASSIFICATION OF BENIGN BREAST DISORDERS

Classification of Benign breast diseases.,ANDI & NON-ANDI

ANDI (aberration of normal development and involution)

Stage	Normal Process	Aberration	Disease
Early (15 – 25 yrs)	Lobular development	Fibroadenoma	Giant fibroadenoma
	Stromal development	Adolescent	Gigantomastia
	Nipple eversion	Nipple inversion	Subareolar abscess/mammary duct fistula
Mature reproductive (25 – 40 yrs)	Cyclic changes of menstruation	Cyclic mastalgia	Incapacitating mastalgia
	Epithelial proliferation during pregnancy	Bloody nipple Discharge	
Late reproductive (35 – 55 yrs)	Lobular involution	Macrocysts sclerosing	
	Ductal involution	Duct ectasia, nipple retraction	Periductal mastitis / abscess
	Epithelial turnover	Simple epithelial hyperplasia	Epithelial atypia

Non-ANDI

Infections : Bacterial, Mycotic, Viral, Helmenthic.

Traumatic : Haematoma , Fat necrosis.

Benign tumors : Duct papillioma , Lipoma , Hamartoma

Miscellaneous:

-Mondor's disease - Desmoid tumour

-Sarcoid -Amyloid

-Vasculitis -Hidradenitis suppurativa of the breast

-Lactating adenoma -Haemangioma

CLINICALASSESSMENT AND INVESTIGATIONS

In the past, clinical assessment was not only the main stay of diagnosis of breast lumps, but usually the only assessment prior to surgical excision or mastectomy. Many investigations have been introduced over recent years, and the three modalities-imaging, clinical assessment and pathological examination, known as triple assessment, have now become standard practice. Since clinical examination alone is relatively inaccurate for diagnosing cancerous masses and has limited reproducibility it becomes mandatory to image and sample pathologically any suspicious palpable area in the breast
Clinical Assessment Of A Breast Lump

- History
- Inspection
- Palpation

Imaging:

- Mammography
- Ultrasound
- Ductography
- Pneumocystography
- Magnetic resonance imaging
- Doppler ultrasound scanning
- Thermography

Biopsy:

- Fine needle aspiration cytology
- Wide bore needle biopsy
- Excisional biopsy

FNAC:
Results of the needle aspiration cytology (FNAC)
C1 -Inadequate Acellular or sparsely cellular or poorly preserved smear
C2 – Benign, Adequately cellular with unequivocal benign epithelial cells
C3 - Probably benign Adequately cellular with mainly benign cells present but some mild atypia present
C4 -Suspicious / probably some features of malignancy in a low malignant cellularity sample or highly cellular with some atypical cells present
C5 – Mailgnant-Frankly malignant cells present, cells showing lack of cohesion with large nuclear to cytoplasmic ratios and nuclear variability.

EPIDEMIOLOGY OF BENIGN BREAST DISEASES IN INDIA:
Benign breast disorders are very common in the general population: two-thirds of women suffer mastalgia; one-third will consult their physician about it, and 10% of women will have a biopsy. India clearly reflects the lack of published work on benign breast conditions until recently; no publication has been found devoted to this subject prior to 1983.

Rangabashyam and colleagues reported a series of 215 benign breast lesions seen in a single unit in chennai, which showed a similar pattern to many other non-western countries, with a marked predominance of fibroadenoma (57%), together with chronic pyogenic abscess (8%) and a high incidence of galactocele (also 8%). The range of less common conditions was unremarkable, but there was a 17% incidence of 'fibroadenosis', seen at a young age (70% before the age of 30) similar to that seen in other non-western countries, but differing by about a decade from rates in western women.

In 1989, Shukla and Kumar reported a dual study of benign breast disorders, a prospective study of patients seen in two large teaching centers during 1985-1987 and a 10-year retrospective study of histological reports. Once again fibroadenoma was the commonest single lesion, and patients presented at an early age, with a peak in the 20-30 age group and more than 90% presenting before the age of 40 . Only 2% of the 90 patients had taken the oral contraceptive pill for a year, and it is interesting to speculate whether this may play a role in the high incidence of fibroadenoma, since the oral contraceptives seem to be protective for fibroadenoma, as well as nodularity in general.

CANCER RISK OF BENIGN BREAST DISORDERS:

- **No increased risk**

Adenosis, sclerosing or florid Apocrine metaplasia
Cysts macro and/or micro Duct ectasia
Fibroadenoma
Fibrosis
Hyperplasia (mild 3.4 epithelial cells in depth), Mastitis (inflam mation)
Periductal mastitis
Squamous Metaplasia

- **Slightly increased risk (1.5-2 times)**

Hyperplasia, moderate or florid, solid or papillary, Papilloma with a fibrovascular core.

- **Moderately increased risk (5 times)**

Atypical hyperplasia
Ductal
Lobular

- **Insufficient data to assign a risk**

Solitary papilloma of lactiferous sinus, Radial scar lesion.

RESULTS:
INCIDENCE OF LESIONS

	Lesion		Haegensen	Present study
Fibroadenosis		69.5 %		51%
Fibroadenoma		21.7 %		29%
Inflammatory		4.3%		14%
Duct papilloma		4.3%		3%

VARIOUS PATHOLOGICAL PATTERNS OF BENIGN BREAST DISEASE

Lesion	No. of cases
Fibroadenosis with cystic disease	38
Fibroadenoma:	
Intracanalicular	18
Pericanalicular	2
Peri&intracanalicular	6
Tubular adenoma	2
Glandular adenoma	1
Lactating adenoma	1
Duct papillioma	3
Mastitis:	
Periductal	1
Chronic Mastitis	1
Phyllodes	1

DISCUSSION:
In this study, hundred patients with benign breast disease were examined, treated and followed up in the department of general surgery in ASRAM hospital, during the period of January 2010 to January 2012 to analyse the various types of presentation, clinical course and the methods of management.

Incidence :
In this study, 51% of patients had fibroadenosis, 29% fibroadenomas, 14% of had inflammatory lesions, 3%of patients had duct papilloma and 2% of galoctocele ,1% of phyllodes were investigated and treated. In haagensen study, 69.5 % of fibroadenosis, 21.7%of fibroadenomas, 4.3 % of inflammatory lesions, and 4.3 % of duct papillorma were recorded.

Age:
Most of the lesions were found to be between 21-30 years of age . The peak incidence of fibroadenosis54.9% (28) was found in 30-40years age. Haagensen study showed maximum incidence is between 35-50years of age. 4%of patients with fibroadenosis had nipple discharge (Haagensen study-3%). Most of the patients with fibroadenoma were found to be between 21 - 30years of age (Haagensen study-35yrs). The youngest patient was 12 yrs prepubertal girl and the oldest was 48yrs (Haagensen study -12 yrs prepubertal and 76 yrs respectively). Duct papilloma was found in three cases.

The youngest patient was 25yrs old(haagensen study -18 yrs). Most of inflammatory lesions were noted in 21-30yrs age group. The youngest patient was l5yrs old girl with acute mastitis, and the oldest patient was

50yrs post menopausal woman with chronic breast abscess. One case of galactocele was recorded in 24 yrs old multiparous woman. One case of phyllodes was reported in premenopausal woman.

Sex:
All the patients in this study were females. Males were excluded in this study of hundred cases.

Marital Status:
87% patients in this study are married. Only thirteen patients (13%) are unmarried women.

Parity:
48 of patients with fibroadenosis were married and 42 patients are mothers of 1-4 children . - Patients with fibroadenoma are married, whereas 8 patients with fibroadenomas are unmarried. Thirteen cases of breast abscess are parous women, most of them are lactating mothers. Duct papilloma, galactocele were noted in parous women.

Clinical presentation :
83patients in this study presented with lump in the breast. 64% patients presented with mastalgia and 8% with nipple discharge. In 45 patients with fibroadenosis had pain and one case presented with milky nipple discharge. All cases of fibroadenomas, abscess and galoctocele presented with lump in the breast. Two cases of duct papilloma presented with nipple discharge.

A) Lump:
Anatomical situation of lump :32.43%(12)cases of patients with fibroadenosis had bilateral lesions. 45.94%(17) patients had right side lesions and 21.62%(8) cases had left side lesions . 55.17%(16) cases of fibroadenomas seen in right breasts , and most of them in upper outer quadrant. Three cases(10.34%) of fibroadenomas has bilateral , which is recurrent and showen hyaline Change and calcification on histopathological examination. One case of gaint fibroadenomas is recorded in 21yrs old women . most of the breast abscess occur in the right breast . two cases of duct papilloma presented as lump in the subareolar region.

B) Pain:
64% patients in this study had as one of their symptoms .88.23%(45) patients with fibroadenosis had mastalgia .Only five cases of fibroadenomas had pain . Almost all cases of abscess have pain.

C) Nipple discharge:
8% of patients had discharge of nipple as of their presenting symptoms .92% had no discharge of the nipple .Four patients were lactating women and 4%of cases of fibroadenosis had discharge.Two cases of duct papilloma had bloody discharge .

Investigations:
In this study fine needle aspiration cytology done in all cases of fibroadenosis to rule out malignancy. In two cases the FNAC is inconclusive, where the two patients were subjected to truecut biopsy .Six patients of fibroadenosis were subjected to excision biopsy, where lumpectomy done for severe mastalgia. Excision biopsy done in the all cases of fibroadenomas. Most of them were intracanalicular fibroadenoma (18 cases) , and 2 cases of pericanalicular fibroadenomas and 5 cases of combined lesions were noted by histopathological examination. Each case of tubular, glandular and lactating adenomas were noted. Two cases of periductal mastitis and three cases duct papilloma are subjected to biopsy after excision of lump. Mammogram was done one case of fibroadenosis and malignancy is ruled out.

Treatment:
The main treatment modalities followed in this study are surgery and conservative treatment with placebo and danazole

Surgical treatment :
6 patients with fibroadenosis underwent lumpectomy for severe mastalgia. All adenomas underwent excision, and no patients had recurrence during follow up, including old case of recurrent fibro adenoma. Microdochectomy done in patients with duct papilloma . All patients who underwent surgery treated with and analgesics post operatively. The patients with galactocele was treated by excision of lump. No recurrence or no secondary infection is noted. Chronic abscess was treated by excision, wide local excision for phyllodes ,no recurrence noted during 6 months follow up. All Ac breast abscesses were treated by I&D.

Medical Treated:
Prepubertal mastitis is treated with antibiotics and analgesics, which subside in five days of treatment.

Conservative treatment of fibroadenosis:
22 patients were treated with placebo and reassurance. 20 patients respond to well to this treatment. 6 patients underwent lumpectomy for severe mastalgia. 2patientas were treated with danazole where pain nodularity responds well. Twelve patients with fibroadenosis and painful nodularity received danazole 100-200 mg /day for 2-3 months. Pain is subsided completely. Danazole produced relief of pain 80% of patients in the clinical study of mansel RE (1982), AND 92% of patients in this study of M.Dhontetal(1979).

CONCLUSIONS
To clinically asses and treat benign breast diseases in females –A study of Hundred patients.

- Most of the patients were treated as out patients.
- Benign breast disorders are very common in the general population: two third of women suffer mastaligia, one third will consult their physician about it , and 10% of women will have a biopsy.
- Common modes of presentation are lump, mastalgia and occasional nipple discharge .
- Studies suggests a diet high in red meat and a high total food intake favour benign breast disorders, cereals and fruits appear to be beneficial.
- Oral contraceptive use reduces the risk of benign breast disorders, including biopsy rates for fibroadenoma and histological cystic disease.
- FNAC was employed to screen the patients and, was found to be simple and accurate in 96% of cases.
- Danazole, is found to be superior to placebo therapy for painful nodularity.
- Surgery was undertaken in 12% of cases, which were refractory to medical line of management. The type of surgery done was Lumpectomy with good relief.
- Fibroadenomas can be effectively treated by excision of lump.
- Acute breast abscess can be treated incision and drainage.
- Duct papilloma and periductal mastitis were treated by microdochectomy and mastectomy respectively.
- The American society consensus document has had a profound influence on the understanding and quantification of cancer risk related to benign disorders. However, the consensus document was not written on tablets of stone and already significant ,although relatively minor ,changes have evolved from new studies.
- Histological pattern and family history are the two most important risk factors.
- Breasts cysts and fibroadenomas are two common conditions considered in document to carry no risk, but now accepted as carrying a small risk.

Tubercular mastitis – Left breast

Ruptured breast abscess – Right

REFERENCES

1. Benign disorders and diseases of the breast. L.E. Hughes, R.E. Mansel and D.J.T. Webser:2nd edition
2. David c.sabiston, text book of surgery, I8 th edition 2009
3. Keith 1 Moore clinically oriented anatomy 5th edition2007.
4. Gag. Decker, and DJ. Duplessis synopsis of surgical anatomy, 12th edition.
5. John B. West & Taylors Physiological basis of medical practice
6. R.S cotrain&V.Kumar Robins Pathological basis of disease 7th Edition 2004.
7. Normans Williams & Christopher & Connell Bailey &Love'S short Practice of surgery 25™ 2008.
8. RF Fintoul, Furquharsons text book of operative surgery.9th edition2007.
9. Alien Clain Demonstrations of Physical signs in clinical surgery Haagensenc. Diseases of the breast , 2nd edition
10. Hughes i.e., and mansel re, ANDI-A new perseptiein pathogenesis and nomenclature of benign beast diseases, lancet, 1987.
11. Gjhadfield, benign diseases of current surgical practice, vol- 1 Re Mansel and lehughes recent advances in surgery vol - , 2001.
12. Dixton J.M FNAC - recent development in the study of benign beast diseases, 1992.
13. Hamelh, Fertiman is benign beast diseases, clinical practice-2001 Schwartz principles of sugery,9th edition.
14. The association of surgery of India text book of surgery 2003.
15. Mansel RE, Wibsy JR hughes le controlled trial of antigonadotrophin, danazole in painful breast disease, lancet.